

Notice of Allowability

Application No.

10/700,520

Examiner

Daniel Pan

Applicant(s)

NGUYEN ET AL.

Art Unit

2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 01/27/05.
2. ☒ The allowed claim(s) is/are 8-12, 14-16, 18-20, 31-33, 44-52 (claims 1-7, 13, 17, 21-30, 34-43 have been canceled).
3. ☒ The drawings filed on 05 November 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10.20.04, 01/27/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date attached.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DANIEL PAN
EXAMINER

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Reasons for Allowance

The following is directed to brief applicable reasoning of Obviousness Double Patenting rejections which might have been used by Examiner. In response, TDs have been filed to avoid the potential rejections by applicant. Applicant is welcome to provide feedback or suggestions in response. All references have been cited in previous actions. See also the Obviousness Double Patenting rejections in the last Office action.

1) Nguyen et al. (5,689,720), patent claim 1 did not recite the identifying maximum of N instructions available for execution as recited in the current claim 8. However, the patented claim 3 already taught the initiation of concurrent execution of instructions based on available of functional units (see claim 3, last paragraph). It would have been obvious because the available functional units would have needed a parameter for indicating the number of instructions to be executed in order to predict ahead the executed number of instructions, and therefore, provided a motivation.

2) Nguyen et al. (10/282,207), Nguyen et al. (10/283,177), claim 8 of copending application did not specifically recite N maximum instructions as claimed. However, copending application disclosed the prefetch control unit. It would have been obvious to one of ordinary skill in the art to include the N maximum instructions because one of ordinary skill in the art should be able to recognize the prefetch control was applicable

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to fetch the instruction ahead of the fetch stage based on a predetermined number of instructions in order to enhance the processing bandwidth.

3) Nguyen et al. (10/283,106), patented claim 6 did not recite the N maximum instructions claimed. However, patented claim 8 included a prefetch instruction buffer for storing plurality of instructions fetched by a prefetch control (see claim 8). One of ordinary skill in the art should be able to recognize the use of a maximum number of instructions in order to predict ahead the number to be executed, and therefore, provided a motivation;

4) Nguyen et al. (10/660,671), Nguyen et al. (10/700,485), the copending applications did not recite the N maximum instructions as claimed. However, copending applications taught conditional branch, and one of ordinary skill in the art should be able to recognize the use of branch in order to indicate the possible number of instructions to be executed on the branch condition in order to predict ahead the maximum number to be executed;

5) Nguyen et al. (10/697,257), copending claim 8 did not teach the bypass control of the register file as claimed. However, the copending claim 8 recites the register file including a plurality of entries for storing the data result generated by the plurality of functional units. Therefore, It would have been obvious to one of ordinary skill in the art to include a bypass as claimed because one of ordinary skill in the art should be able to recognize a direct path, such as a bypass, for storing of the data result from the functional units into the register file entries was applicable, and therefore, provided a motivation.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

21 Century Strategic Plan

DANIEL H. PAN
PRIMARY EXAMINER
GROUP

